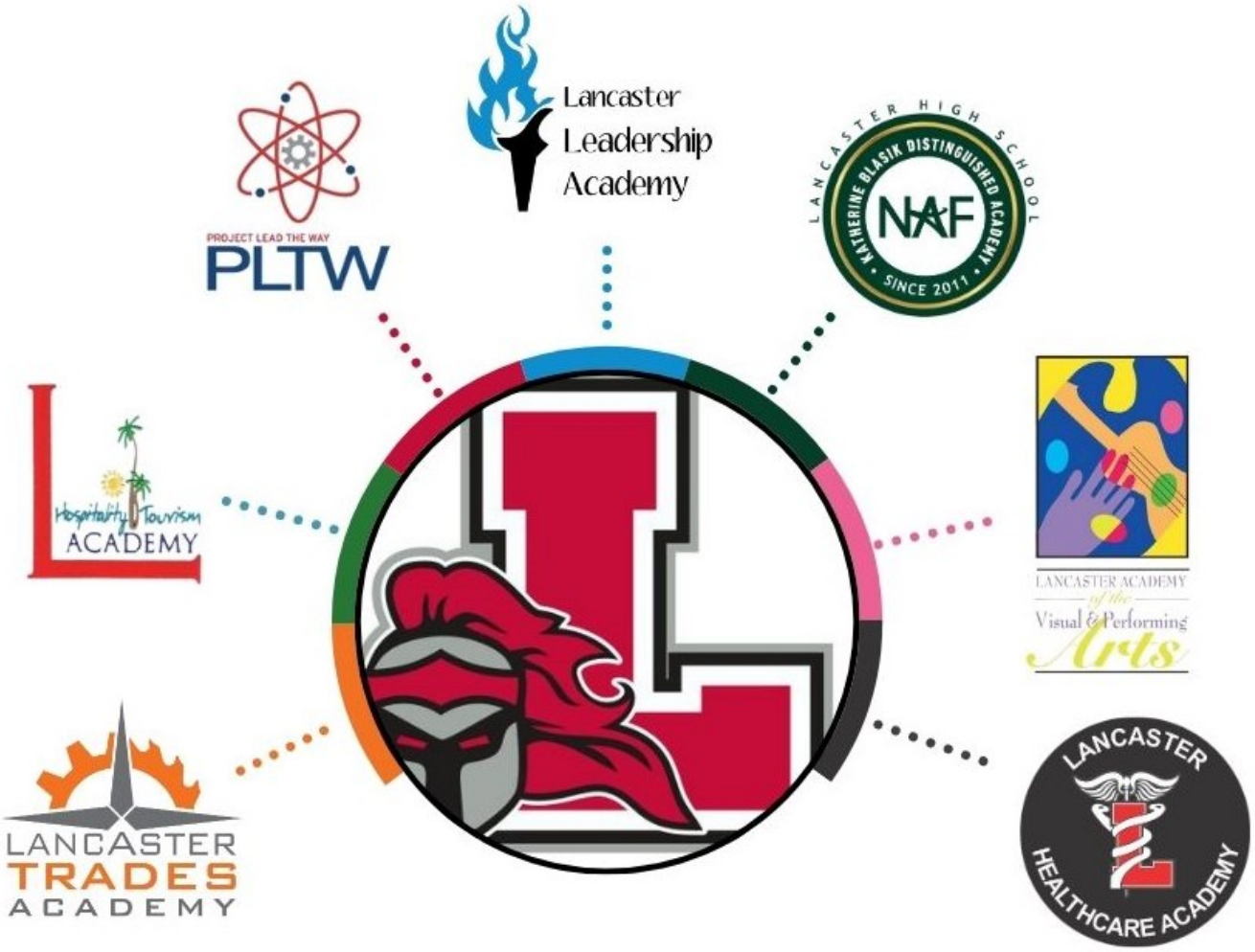
2026-2027

Guide to Academy Programs

Lancaster High School



Lancaster High School

1 Forton Drive

Lancaster, NY 14086

(716) 686-3255

https://lhs.lancasterschools.org/academies

Academy Overview

Career Academies combine college preparatory and career and technical education with a career theme in a structured "small learning community" to make education more relevant to high school students through personalized and appropriate learning while preparing for careers and postsecondary education[1]. Students enrolled in one of Lancaster High School's academies gain access to the tools that will help them to identify, build and practice relevant skills for life after high school whether that is college, a career, or another pathway.

Career academies produce strong and sustained increases in students' post-high school earnings eight years after graduation.[2]

Academies at Lancaster High School:

- Organized small learning communities ("school within a school") to foster positive relationships.
- College preparatory curriculum with a career theme and core subject integration.
- Project-based with learning activities that focus on real-world problem-solving.
- Career preparatory work-based learning activities focused on discovering, preparing, and practicing career skills.
- Significant and relevant partnerships include employers, non-profit organizations, higher education & community leaders.

Students may apply to an academy during their freshmen year only.

Career Themes

★ Academy of Finance (AOF)	Finance and Business
★ Academy of Hospitality and Tourism (AOHT)	Hospitality and Tourism
★ Academy of the Visual and Performing Arts (AVPA)	Visual and Performing Arts
★ Health Care Academy (HCA)	Health Care
★ Leadership Academy (LLA)	Leadership
★ Trades Academy (LTA)	Manufacturing and Skilled Trades
★ Project Lead the Way (PLTW)	Engineering

[1]Source: United States Department of Education
[2] Source: United States Department of Labor

Laude – Quality Points Score (QPS)

Courses eligible to earn distinction points are identified within the guide to academy programs. Full details on the Laude system are provided within the course description guide. Students must pass the course and receive course credit to receive the quality points.

Academic Course with Recognition	Quality Points Earned per Credit	Course Guide Symbol
AP – Advanced Placement	2.0	
Dual Enrollment	1.0	
Courses of Mastery	0.5	

Academy Application

Applications and Current Details: https://lhs.lancasterschools.org/academies

Considerations

Career Interests

1. Check with your counselor to complete a career assessment
2. Refer to lessons in your Freshmen Foundations class related to career exploration

Learn about each academy

1. Ask questions during academy presentations in Freshmen Foundations
2. Attend Academy Information Night with your parents in January
3. Visit Academy Directors

Application Directions

1. Complete the online application
2. Follow specific directions of each academy
3. Request recommendations from teachers

Application Timeline - Class of 2029 (January 2026)

- Attend Academy Information Night in January
- Submit application by the due date
- Announcements made in February

Academy Program Guide Table of Contents

ACADEMY OF FINANCE (AOF) 8

NAFTrack Certification 8
NYS Regents: Career & Technical Endorsement (CTE) - Finance 8
Additional Certifications Available 8
Buffalo State University Dual Enrollment 8
Microsoft Office Specialist Certification 8

ABOUT NAF 9

NAF and the Lancaster Academy of Finance (AOF) 9

ACADEMY OF FINANCE (AOF) HIGHLIGHTS 9

Academy of Finance Application 9
Business, Community and Alumni Partnership 10
Internship Program for NAFTrack and CTE Certifications 10

AOF PROGRAM GRADUATION REQUIREMENTS 11

Core Classes – Academy of Finance 11
Grade 9 11
Grade 10 11
Grade 11 11
Grade 12 11
Pathway Option 1: CTE (NYSED Career & Technical Endorsement) 11
Pathway Option 2: NAFTrack 11

ACADEMY OF FINANCE COURSE DESCRIPTIONS 12

AOF: Success Strategies 12
AOF: Principles of Finance 12
AOF: Financial Services 12
AOF: Microsoft Office 12
AOF: Principles of Accounting (Honors) 13
AOF: Internship & Professional Ethics 13
AOF NAFTrack Paid Internship & CTE (Independent Study) 13
AOF: Financial Planning 14

ACADEMY OF FINANCE ELECTIVES 15

School Credit Union 15
Advanced Accounting 15
Business and Personal Law 16
Keyboarding & Microsoft Word 16
Entrepreneurship 16
Business Planning 17
Principles of Marketing 17
Sports and Entertainment Marketing 17

ACADEMY OF HOSPITALITY AND TOURISM (AOHT) 18

Overview 18
Structure of AOHT 18
NYS Regents: Career & Technical Endorsement (CTE) – Hospitality & Tourism 18

MAJOR BENEFITS OF THE ACADEMY OF HOSPITALITY AND TOURISM 19

Benefits Overview 19
Buffalo State University Dual Enrollment 19
Student Practical Experience and Familiarization Tours 19
Student Practical Experience *19*
Familiarization tours *19*

ACADEMY OF HOSPITALITY AND TOURISM COURSE DESCRIPTIONS 20

AOHT: Principles of Marketing 20
AOHT: Sports and Entertainment Marketing 20
AOHT: Success Strategies 20
AOHT: Introduction to the Food and Beverage Industry 21
AOHT Introduction to the Hospitality Industry 21
AOHT Hotel & Hospitality Information Systems 21
AOHT: Geography and World Cultures 22
AOHT: CEIP (Career Exploration Internship Program) 22
AOHT: Business Planning 22
AOHT: Advanced Food and Beverage 23
AOHT: Event Management and Planning 23
AOHT: CFM Financial Literacy 23
AOHT: Student Practical / COOP 23

ACADEMY OF THE VISUAL AND PERFORMING ARTS (AVPA) 24

Overview 24
Individual Arts Assessment Pathway (IAAP) – Visual Arts or Music 24
Visual Arts - Highlights 25
Benefits to Visual Arts participation: *25*
Performing Arts - Highlights 25
Benefits to Performing Arts participation: *25*

VISUAL ARTS – COURSE DESCRIPTIONS 26

AVPA: Visual Arts Seminar 26
Drawing and Painting 26
AVPA: Portfolio Development 26
Academy: Internship 27
AVPA: Intro to Art Internship 27
AVPA: Gallery Internship 27

VISUAL ARTS ELECTIVE CHOICES 28

Ceramics I 28
Ceramics II 29
Studio in Graphic Design 29
Advanced Photography (AP 2D Design) 30
Illustrating and Cartooning 30
Jewelry I 30
Jewelry II 31

VISUAL ARTS EXTRACURRICULAR ACTIVITIES 31

PERFORMING ARTS – CURRICULUM REQUIREMENTS 32

Grade 9 32
Grade 10 32
Grade 11 32
Grade 12 32

PERFORMING ARTS – COURSE DESCRIPTIONS 33

AVPA: Music Theory I 33
AVPA: AP Music Theory 33
AVPA: Leadership in Music 33
Academy: Internship 34

PERFORMING ARTS EXTRACURRICULAR ACTIVITIES 34

HEALTHCARE ACADEMY- (HCA) 35

HEALTHCARE ACADEMY COURSE DESCRIPTIONS 35

HCA: Introduction to Health Careers 35
HCA: Anatomy and Physiology I 36
HCA: Anatomy and Physiology II 36

LEADERSHIP ACADEMY (LLA) 37

A Unique Leadership Learning Experience 37
Lancaster Leadership Academy Mission 37
Complimentary Courses 37
"Why be part of leadership?" 38
Leadership Academy Internship Program 38
NASC Distinguished Leader Program 38

LEADERSHIP ACADEMY COURSE DESCRIPTIONS 39

LA: Effective Communication for Leadership 39
1st & 2nd quarters 39
3rd & 4th quarters 39
LA: Processes of Leadership 40
1st & 2nd quarters 40
3rd & 4th quarters 40
Leadership in Action 41
Academy: Internship 41
Foundations Teachers' Assistant 42
The Role of a Foundations Teachers' Assistant 42

LEADERSHIP ACADEMY COMPLIMENTARY CHOICES 43

Public Speaking 45
Prep For Success 46
Community Service Credit 47

MANUFACTURING & CONSTRUCTION SKILLED TRADES ACADEMY (LTA) 48

Overview 48
Manufacturing and Skilled Trades Mission 48

MANUFACTURING & CONSTRUCTION SKILLED TRADES COURSE DESCRIPTIONS 49

Trade Apprentice I 49
Trade Apprentice II 49
Trade Journeyman I 49
Trade Journeyman II 49
Trades: Construction Drawings & Modeling 50
Trades: Advanced Manufacturing 50
Trades: Senior Project I 50
Trades: Senior Project II 50

TRADES – OTHER RELEVANT COURSEWORK 50

PROJECT LEAD THE WAY (PLTW) **51**

Overview 51
PLTW as an Academy 51
Dual Enrollment (Project Lead the Way) –Rochester Institute of Technology 51
Program Notes 51

PROJECT LEAD THE WAY COURSE DESCRIPTIONS **52**

Engineering Design and Drawing for Production (DDP) - Honors 52
Computer Science Essentials (CSE) 52
Principles of Engineering (POE) 52
AP Computer Science Principles (CSP) 53
Digital Electronics (DE) 53
Computer Integrated Manufacturing (CIM) 53
Design and Prototyping Lab (DPL) 54
Engineering Design and Development (EDD) – The Capstone Class 54

Academy of Finance (AOF)

KATHERINE BLASIK DISTINGUISHED ACADEMY
LANCASTER HIGH SCHOOL
ACADEMY OF FINANCE

Students in the AOF pursue one (or both) of the following certifications:

NAFTrack Certification

NAFTrack Certification, designed by education and business leaders, is an employability credential that serves as NAF's seal of college and career readiness. NAF assesses student performance by completing career-focused courses, internship assessments, and high school graduation.

NYS Regents: Career & Technical Endorsement (CTE) - Finance

The Lancaster Academy of Finance is a NYSED accredited CTE program with pathways for students seeking Regents and Advanced Regents diplomas. Students learn "hands-on" career skills while earning a Regent's Diploma to prepare for college or other higher education studies.

Additional Certifications Available

Students also have the option to earn additional credit or certification. These are optional.

Buffalo State University Dual Enrollment

BUFFALO STATE
The State University of New York

The Academy of Finance has partnered with Buffalo State University and offers dual enrollment college courses through the College Access Program. *Students are eligible to earn up to 24 transferable college credits.*

Microsoft Office Specialist Certification

Microsoft Office Specialist

AOF students earn Microsoft Excel certification, a credential necessary for Business and Finance careers plus others. Additionally, students can earn Microsoft Word and PowerPoint certifications.

Academy of Finance (NAF)

About NAF

NAF and the Lancaster Academy of Finance (AOF)

NAF solves some of the biggest challenges facing education and the economy by bringing education, business, and community leaders together to transform the high school experience. Since 1980, NAF has grown from one NAF Academy of Finance in NYC to 604 NAF academies focusing on growing industries today. ***NAF partners with some of America's top companies who seek to employ NAF certified graduates.***

Lancaster High School's Academy of Finance (LHSAOF) is a member of NAF, the recognized national leader for career academies. Since its inception in 2008, the LHS AOF has graduated nearly 1000 students.

Our academy is structured as a small, focused learning community that fits within our high school. Our program spans three years' of industry-validated curriculum, project-based learning, and a robust work-based learning program culminating with a paid internship. Students earn ***Microsoft Certification*** and/or the ***Career and Technical Education Certification*** on their Regents or Advanced Regents diploma from ***NYSED***. Additionally, students are eligible to graduate from the LHS AOF with 24 transferable college credits.

Student career preparation is supported by volunteers of the ***Academy of Finance Business, Community & Alumni Partnership***, a separate board that falls under the umbrella of the Lancaster Education Alumni Foundation (LEAF), a 501(c)3 organization.

Academy of Finance (AOF) Highlights

- The LHS AOF is also referred to as NAF: Academy of Finance

Academy of Finance Application

Freshmen apply to the Academy of Finance each January. The application is open to all freshmen and detailed instructions are provided on the Lancaster High School website and at Academy Information Night.

A successful candidate demonstrates:

- Motivation to Participate
- Positive Attitude
- Potential to complete the program
- Seriousness about career readiness
- Readiness for relevant & rigorous work

These attributes are illustrated through.

- Teacher or Counselor Recommendations
- Student Writing Sample
- Discipline/Attendance Record

If the number of applicants exceeds available positions, a review of the student's academic record may also be considered

Academy of Finance (NAF)

Business, Community and Alumni Partnership

Advisory Boards are the essential bridge between schools and the workplace. Partnering with the Lancaster High School Academy of Finance, local businesses, community leaders, parents, and alumni maximize work-based learning activities essential to college, career, and future success. Typical activities include: guest-speakers, career coaches, project judges, job shadow providers, and paid internship providers. The Business, Community & Alumni Partnership operates under the umbrella of LEAF (Lancaster Education Alumni Foundation) as a 501(c)3 non-profit organization.

Internship Program for NAFTrack and CTE Certifications

To earn NAFTrack and/or CTE certification and graduate from the Academy of Finance, students MUST complete a qualified internship or work experience. To qualify, all experiences must be approved by a NYSED certified internship coordinator ***in advance*** of the experience. The internship or work experience is typically completed during the junior-senior summer, but may also be completed throughout the school year. Students seek internship placements based on their career interests and must interview. Businesses then develop a training plan with the school's internship coordinator. Internship credit is given to students who receive a favorable, formal evaluation of their employability skills by their workplace supervisor using the NAFTrack evaluation system.

Academy of Finance (NAF)

AOF Program Graduation Requirements

- Graduation details are provided during parent/student orientation held each September.

Students must earn CTE or NAFTrack certification. (Both are possible)

To earn NYSED CTE certification

All Core Classes + Pathway Option 1 + Work-Based Learning & Employability Portfolio

To earn NAFTrack certification

All Core Classes + Pathway Option 2 + Work-Based Learning & Employability Portfolio

Core Classes – Academy of Finance

Grade 9

✓ Freshmen Foundations	0.5 credit

Grade 10

✓ AOF Success Strategies	0.5 credit
✓ AOF Principles of Finance	0.5 credit
✓ AOF Financial Services	0.5 credit
✓ AOF Microsoft Office	0.5 credit

Grade 11

✓ AOF Principles of Accounting	0.5 credit
✓ AOF Internship & Ethics	0.5 credit

Grade 12

✓ AOF Financial Planning	0.5 credit
✓ NAFTrack Internship & CTE (Independent Study, not part of daily schedule)	0.5 credit

Pathway Option 1: CTE (NYSED Career & Technical Endorsement)

All AOF Core and then choose TWO (Grades 9-12)

❑ Advanced Accounting	0.5 credit
❑ Business & Personal Law	0.5 credit
❑ Entrepreneurship	0.5 credit
❑ Principles of Marketing	0.5 credit

Pathway Option 2: NAFTrack

All AOF Core and then choose TWO (Grades 9-12)

❑ Advanced Accounting	0.5 credit
❑ Business & Personal Law	0.5 credit
❑ Entrepreneurship	0.5 credit
❑ Principles of Marketing	0.5 credit
❑ Sports & Entertainment Marketing	0.5 credit
❑ Business Planning	0.5 credit
❑ Keyboarding & Word	0.5 credit

Academy of Finance Course Descriptions

AOF: Success Strategies

BUFFALO STATE The State University of New York UNC100 Mastering the Academic Environment (3 credits)

9075 (Fall) Grade 10 ½ credit

Success Strategies orients students to the world of work and school by addressing the need for students to develop good habits. Students explore their strengths and weaknesses as well as understanding the diversity of others, group dynamics, effective time management, setting priorities and engaging in meaningful conversations. Students become aware of career and college options and develop solid interpersonal skills as they prepare for the world beyond the classroom.

AOF: Principles of Finance

9084 (Fall) Grade 10 ½ credit

This course introduces students to the financial world. Students develop financial literacy as they learn about the function of finance in society. They study income and wealth; examine financial institutions; learn how businesses raise capital; and study key investment-related terms and concepts. They also research how innovations have changed the financial services field. Finally, students explore careers that exist in finance today.

AOF: Financial Services

9076 (Spring) Grade 10 ½ credit

⊗ **Prerequisite: AOF Principles of Finance**

This course gives students an overview of banks and other financial services companies. It introduces students to the origins of money and banking and examines the early banking history in the United States. Students study the financial services industry and the types of companies it includes in depth. They learn about the services offered by such companies and analyze how they earn profits. Finally, students examine careers in financial services.

AOF: Microsoft Office

BUFFALO STATE The State University of New York CIS101 Computer Fundamentals (3 credits) Microsoft Office Specialist

9083 (Spring) Grade 10 ½ credit

This course focuses on the entire Microsoft Office Suite to include Word, Excel, PowerPoint and Access. Students are introduced to the preferred productivity software for businesses and culminates with students earning Microsoft Office certification in Excel. Additional certification may be earned in PowerPoint.

.

Academy of Finance (NAF)

AOF: Principles of Accounting (Honors)

9077 (Fall) Grade 11 ½ credit

⊗ **Prerequisites: AOF Principles of Finance, AOF Financial Services**

Principles of Accounting provides students with an understanding of the accounting process and how it facilitates decision making by providing data and information to internal and external stakeholders. Students learn that accounting is an integral part of all business activities. They learn how to apply technology to accounting by creating formulas and inputting data into spreadsheets. Students also examine career opportunities and the professional certifications and designations earned by individuals in the accounting profession.

AOF: Internship & Professional Ethics

9142 Grade 11 ½ credit

⊗ **Required: All Work Based Learning through grade 10 (Career Coaching, Mock Interview, etc)**

This is the culminating work-based learning course. Students consider the dilemmas faced in the workplace and learn about the qualities of effective leaders and the tools modern professionals use for effective communications, presentations, teamwork, networking, motivation, self-discipline, etiquette, and ethics. The course culminates with a career plan and portfolio presentation to members of the Business, Community and Alumni Partnership with an opportunity to interview for potential internship placements.

AOF NAFTrack Paid Internship & CTE (Independent Study)

9146 Grade 12 ½ credit

⊗ **This course is an independent study and not scheduled as part of the academic day.**

⊗ **Required: Internship Coordinator approval**

⊗ **Required: All Work-Based Learning through grade 11 (Networking, Portfolio Presentation, etc.)**

⊗ **Recommended: Completed or concurrent enrollment for AOF Internship & Professional Ethics.**

Credit Issued (1) Workplace Agreement, (2) 80 hours of experience, and (3) favorable online NAFTrack evaluation.

This course monitors all NAFTrack and CTE certification requirements of work-based learning and employability portfolio completion, primarily the successful completion of the internship/work experience. All internships, regardless if pusuing NAFTrack or CTE certifications, must include the Workplace Agreement (completed in advance), a minimum of 80 hours, and a favorable workplace supervisor evaluation completed online through the NAFTrack system.

Academy of Finance (NAF)

AOF: Financial Planning

⇔ BUFFALO STATE The State University of New York FIN110 Personal Finance (3 credits)

9072 (Full year, alternating days) Grade 12 ½ credit

⊗ **Required: AOF Principles of Finance, AOF: Financial Services, AOF: Principles of Accounting**

Financial Planning provides students with an overview of the job of a financial planner. Students learn to consider how all aspects of financial planning might affect a potential client, and learn about the importance of financial planning in helping people reach their life goals. This course includes lessons on saving, borrowing, credit, and all types of insurance, and covers various types of investments. Students also examine careers in financial planning.

Academy of Finance Electives

Consider AOF electives based on

- **Pathway Option 1: CTE (NYSED Career & Technical Endorsement)**
- or **Pathway Option 2: NAFTrack**

School Credit Union

9028 Grades 10, 11, 12 ½ credit

⊗ **NOTE: Availability is limited and subject to change**
⊗ **Required: Must be available for 1 class period every Thursday for the entire school year**
⊗ **Pathway 2 NAFTrack Only**

This fully functional branch of the Good Neighbors Credit Union provides financial services to its members and delivers financial literacy lessons throughout the district. Students are taught and perform the job of teller alongside credit union staff.

Advanced Accounting

⇔ Buffalo State The State University of New York BUS212 Introduction to Accounting (3 credits)

(Spring) 9031 Grades 10, 11, 12 ½ credit

⊗ **Dual Enrollment Prerequisite: Principles of Accounting**
⊗ **3rd Math Credit for Graduation Prerequisite: Principles of Accounting**
⊗ **Pathway 1 CTE or Pathway 2 NAFTrack**

This course is based on the fundamentals of Accounting with emphasis on merchandising businesses organized as corporation. This course will give students a strong foundation in advanced accounting theory and procedures including an in-depth approach to preparing income statements and balance sheets along with recording of complex business transactions related to publicly held corporations. Students use computer software applications that can be used to expedite the accounting process. This course is highly recommended for students who are considering any business or accounting major in college.

Academy of Finance (NAF)

Business and Personal Law

BUFFALO STATE The State University of New York BUS368 Business Law I(3 credits)

9035 Grades 10, 11, 12 ½ credit

⊗ **Pathway 1 CTE or Pathway 2 NAFTrack**

Learn about legal concepts that will impact your life now and in the future on a personal level and within the business community. In this course, you will develop an understanding of your legal rights and responsibilities as a citizen, consumer, and employee. Focus areas include an introduction to law, the structure of the U.S. and New York State court systems, contract law, consumer law, criminal law, civil law, family/domestic law, employment law and careers in the legal profession.

Keyboarding & Microsoft Word

Microsoft Office Specialist

(Fall) 9012 Grades 9, 10, 11, 12 ½ credit

⊗ **Pathway 2 NAFTrack Only**

This real world course prepares students to understand and prepare fast, efficient forms of digital communication. Students learn efficient keyboarding skills and become skilled in Microsoft Word features by completing hands on simulations similar to what would be found in high school, college and business.

Students become quick and efficient by mastering the tools necessary for success in high school, college, the workplace and their everyday lives. Successful students are eligible to become certified as a Microsoft Office Specialist, a highly sought after qualification of hiring managers.

Entrepreneurship

BUFFALO STATE The State University of New York BUS365 Entrepreneurship (3 credits)

(Fall) 9038 Grades 10, 11, 12 ½ credit

⊗ **Pathway 1 CTE or Pathway 2 NAFTrack**

This course is designed to introduce students to the role that entrepreneurship and small business play in our economic system. An in-depth study of the various steps involved in starting a new business and the financial, legal and government aspects critical to a successful small business will be covered. Topics include marketing, competition, communication, human resources, type of ownership, location and setting up your business. Students become involved in a variety of activities including local entrepreneur guest speakers, visits to local businesses and the 43 North Business Plan Competition.

Academy of Finance (NAF)

Business Planning

(Spring) 9041 Grades 10, 11, 12 ½ credit

⊗ **Pathway 2 NAFTrack Only**

If you like Entrepreneurship and the hit show "Shark Tank", this is the course for you! This course will go more in-depth and students will create and present a detailed business plan. We will work with a variety of local entrepreneurial organizations where students are be eligible to compete in a business plan competition. Other topics include Identifying and meeting a market need, marketing your business, Distribution, Promotion, Selling and Operations Management. Students will also visit 43 North Business Plan Competition headquarters at Seneca Tower.

Principles of Marketing

BUFFALO STATE The State University of New York BUS320 Principles of Marketing(3 credits)

(Fall) 9037 Grades 10, 11, 12 ½ credit

⊗ **Pathway 1 CTE or Pathway 2 NAFTrack**

Marketing provides the bridge between business and consumers. This course will open the student's eyes to the world of marketing that is all around and to become educated decision makers. Content revolves around the basic marketing functions, selling, public service announcements, promotion, market research, social media, customer service and buying behavior. Marketing is a course for anyone to take who is and will continue to be a consumer.

Sports and Entertainment Marketing

BUFFALO STATE The State University of New York BUS368 Sports and Entertainment Marketing (3 credits)

(Spring) 9040 Grades 10, 11, 12 ½ credit

⊗ **Pathway 2 NAFTrack Only**

This course is designed to study marketing principles as it relates to the sports and entertainment industry. Instructional areas will include: marketing, advertising, promotion, internet/social media marketing, sponsorship and endorsements, event marketing, and branding an image. A basic understanding of the principles of marketing is helpful to enroll in this course, but not a requirement. Classroom instruction will be reinforced through the use of group/individual projects, guest speakers, possible field trip experiences, current periodicals, computer work, and lecture/discussions.

Academy of Hospitality and Tourism (AOHT)

Overview

The Academy of Hospitality and Tourism (AOHT) concentrates on equipping students for the hospitality industry. An articulation agreement with SUNY Buffalo State University affords students the experience of completing college level courses while still in high school and opportunities working with nearby industry professionals.

Students' core subjects are enhanced with a concentration in hospitality to include hotel administration, restaurant management, culinary arts, event planning, travel, and tourism. The excitement and diversity in the hospitality and tourism industry makes it an attractive field for students who are fascinated by other cultures and economies.

The AOHT provides engaging courses and real-life work experiences that inspire students about their future whether it is in this industry or other professions. Completion of the AOHT program of study helps prepare students for post-secondary education not only in hospitality and tourism related majors but also for any concentrated program requiring a strong foundation in social studies, business, and language arts.

Structure of AOHT

The Academy of Hospitality and Tourism is structured as a "Small Learning Community" focused on careers in the hospitality, tourism, and restaurant industry. The three-year curriculum begins in the sophomore year by enhancing a student's core subjects with a concentration in hospitality to include hotel administration, restaurant management, culinary arts, event planning and tourism.

NYS Regents: Career & Technical Endorsement (CTE) – Hospitality & Tourism

The Lancaster Academy of Hospitality and Tourism is a NYSED accredited CTE program with pathways for students seeking Regents and Advanced Regents diplomas. Students learn "hands-on" career skills while earning a Regent's Diploma to prepare for college or other higher education studies.

Students apply academic concepts to real-world situations with:

- Internships
- Mentorships
- Job shadowing
- Industry-based certifications
- Opportunity to earn college credit
- Other work based learning opportunities

Major Benefits of the Academy of Hospitality and Tourism

Benefits Overview

- ★ College Level Courses in partnership with SUNY Buffalo State University
- ★ Industry internship (Second semester Junior or first semester Senior)
- ★ Potential for ServSafe certification (necessary for the restaurant industry)



- ★ Leadership and Event planning opportunities
- ★ Familiarization tours of tourist destinations
- ★ Foreign Language and Cultural opportunities

Buffalo State University Dual Enrollment

BUFFALO STATE
The State University of New York

The Family and Consumer Science Departmenty has partnered with the SUNY Buffalo State CAP program and offers college level courses taken at LHS as part of the normal school day, enabling students to earn college credit. Students earning a grade of "C" or better are eligible to transfer these SUNY approved courses.

Student Practical Experience and Familiarization Tours

Student Practical Experience

The student practical experience is organized as an independent study that will foster career success so that students are able to address current local, regional, national and international issues within the hospitality and tourism industry and as a method to encourage lifelong learning, civic responsibility, and leadership. Each course within the Academy curriculum includes a dedicated project and one course per school year will address the fundamentals necessary for the practical experience.

Familiarization tours

Familiarization tours (aka FAM tours) are used to help students identify with a variety of potential career choices within the hospitality industry and to become familiar with a city, region, state or popular tourist destination. FAM tours are an excellent way to discover the geographic and cultural differences that attract tourists

Academy of Hospitality and Tourism Course Descriptions

AOHT: Principles of Marketing



BUS320 Principles of Marketing(3 credits)

(Fall) 9037 Grade 10 ½ credit

Marketing provides the bridge between business and consumers. This course will open the student's eyes to the world of marketing that is all around and to become educated decision-makers. The content revolves around the basic marketing functions, selling, public service announcements, promotion, market research, social media, customer service and buying behavior. Marketing is a course for anyone to take who is and will continue to be a consumer.

AOHT: Sports and Entertainment Marketing



BUS368 Sports and Entertainment Marketing (3 credits)

(Spring) 9040 Grade 10 ½ credit

This course is designed to study marketing principles as it relates to the sports and entertainment industry. Instructional areas will include: marketing, advertising, promotion, internet/social media marketing, sponsorship and endorsements, event marketing, and branding an image. A basic understanding of the principles of marketing is helpful to enroll in this course, but not a requirement. Classroom instruction will be reinforced through the use of group/individual projects, guest speakers, possible field trip experiences, current periodicals, computer work, and lecture/discussions

AOHT: Success Strategies



9923 (Fall) Grade 10 ½ credit

This one-semester course helps orient students to the world of work and school and is the first course offered in the Hospitality Academy. Success Strategies addresses the need for students to develop good work and study habits, helps students to understand their strengths and weaknesses, effectively manage time, set priorities, and establish the foundation habits of successful people. Students prepare portfolios, learn about school resources, develop career plans, start planning for college, and develop solid interpersonal skills as they prepare for the world beyond the classroom.

Academy of Hospitality & Tourism

AOHT: Introduction to the Food and Beverage Industry

9913 (Spring) Grade 10 ½ credit

Adapted and more in-depth version of Food and Nutrition designed especially for students interested in a career in the hospitality industry. Throughout this course, students will:

- Learn/practice kitchen safety procedures and food preparation skills including how to read/follow a recipe using proper measuring techniques
- Be able to identify and safely use various kitchen tools and equipment
- Understand and practice safe food handling procedures
- Learn essential kitchen and restaurant management skills including culinary professionalism, meal management, food purchasing and meal service techniques.
- Explore a variety of careers related to food, nutrition, and the hospitality industry

---

AOHT Introduction to the Hospitality Industry

BUFFALO STATE The State University of New York HTR110 Introduction to the Hospitality Industry (3 credits)

9915 (Fall) Grade 11 ½ credit

This course takes a management perspective in introducing students to the organization and structure of hotels, restaurants, food service operations, clubs, cruise ships, convention bureaus, conference centers, and casino hotels. Other topics include: business ethics, franchising, management contracts, and areas of management responsibility such as human resources, marketing and sales, and advertising.

AOHT Hotel & Hospitality Information Systems

BUFFALO STATE The State University of New York HTR368 Hotel Operations (3 credits)

9916 (Fall) Grade 11 ½ credit

Provides an overview of the information needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software, and generic applications; focuses on computer-based property management systems for both front office and back office functions; examines features of computerized restaurant management systems; describes hotel sales computer applications, revenue management strategies, and accounting applications; addresses the selection and implementation of computer systems; focuses on managing information systems and examines the impact of Internet and private intranets on the hospitality industry.

Academy of Hospitality & Tourism

AOHT: Geography and World Cultures



HTR100 Multicultural Foods (3 credits)

9914 (Spring) Grade 11 ½ credit

This one semester course introduces students to the impact that geography, culture, and cuisine have in the hospitality and tourism industry. From high level business negotiations to casual conversations among friends, every interpersonal interaction is shaped by cultural norms and expectations. This thought-provoking class will present a framework for understanding the impact of culture, geography and resources available on food preparation, food supply, communication, travel and tourism. This course will also help students build inter-cultural awareness by allowing students to engage in research related to a multitude of world cultures and create "culture kits" to demonstrate an understanding of customs, traditions, and lifestyle.

AOHT: CEIP (Career Exploration Internship Program)



UNC100 Mastering the Academic Environment (3 credits)

9051 (Spring) Grade 11 ½ credit

The AOHT-CEIP (Career Exploration Internship Program) is designed to give students hands-on experience in a hospitality related career. Students are placed in an unpaid training internship with an employer from a local company for a practical on-the-job experience. This course is in preparation of the student's paid internship experience as it includes classroom learning on important workplace topics, such as resume preparation, effective interviewing techniques, teamwork, projecting a professional image, job motivation and employee benefits. Academy students must meet eligibility requirements to take this course. This program is registered with the New York State Education Department.

AOHT: Business Planning



(Spring) 9041 Grade 12 ½ credit

If you like Entrepreneurship and the hit show "Shark Tank", this is the course for you! This course will go more in-depth and students will create and present a detailed business plan. We will work with a variety of local entrepreneurial organizations where students are be eligible to compete in a business plan competition. Other topics include Identifying and meeting a market need, marketing your business, Distribution, Promotion, Selling and Operations Management. Students will also visit 43 North Business Plan Competition headquarters at Seneca Tower.

Academy of Hospitality & Tourism

AOHT: Advanced Food and Beverage

BUFFALO STATE The State University of New York HTR200 Sanitation and Safety in Food Service (3 credits)

9920 (Fall) Grade 12 ½ credit

Students will build upon the prior information and activities from their previous cooking classes. Food labs will include preparation of meat and poultry, soups, salads, pastries, candies, and seasonal specialties. Additional topics include the role of science in the world of food, meal management, and food purchasing, careers in the food industry, advanced culinary and gourmet food techniques.

AOHT: Event Management and Planning

BUFFALO STATE The State University of New York HTR375 Events Management (3 credits)

9918 (Spring) Grade 12 ½ credit

This course will give you a look into the almost invisible but greatly important career of event planning. This course will explore the various aspects of event planning as well as the characteristics and skills necessary to be a successful event planner. Topics include: Defining event planning and its characteristics, exploring why clients use event planners, types of events, your job as an event planner, financial aspects, contracts, and insurance issues, and the importance of networking. Students will assist with planning and managing an event relevant to the course topics.

AOHT: CFM Financial Literacy

9911 Grade 12 ½ credit

Students will acquire the lifelong skills necessary to manage their personal and professional lives. Students are given the opportunity to explore careers based upon their interests and aptitudes. An emphasis will be placed on providing students with the opportunity to learn about the features of our economy, explore a variety of careers, learn the skills and competencies needed for success in the workplace and to begin to become financially literate. Students will realize the significance of their part in the economic system. Important management and economic concepts are defined in relation to business transactions and to the individual as an entrepreneur, employee, consumer, and citizen.

AOHT: Student Practical / COOP

9922 Grade 12 ½ credit

The Cooperative Career & Technical Education Work Experience Program is a work-based learning program for students age 16 and above, consisting of 150 of paid, school-supervised work experience, supported by related in-school instruction in a specific career & technical discipline. Students may earn ½ unit of credit towards a CTE sequence. This program is registered with the New York State Education Department.

Academy of the Visual and Performing Arts (AVPA)

Overview

The mission of the Lancaster Academy of the Visual and Performing Arts is to provide students with a solid foundation in the arts through a sequence of academic courses, career exploration opportunities, and inspiring interactions with fellow students, faculty, and professional artists.

Regardless of their future career path, Arts Academy students gain numerous benefits from the three-year program, including enhanced artistic proficiency, stronger communication and leadership skills, and increased confidence through collaboration for long-term projects related to music or visual arts.

Arts Academy students complete a sequence of music or visual arts courses, including college-level courses in Music Theory or Drawing, 2D Design, and 3D Design. They engage with guest artists, participate in job shadowing and internships, and prepare for college applications and auditions.

Beyond the classroom, students present their work in annual recitals or exhibitions. Visual arts students manage a professional on-campus gallery, and music students perform at school and community events. All students contribute to planning and running the annual Festival of the Arts and participate in field trips to professional art galleries and musical performances..

Individual Arts Assessment Pathway (IAAP) – Visual Arts or Music

The Individual Arts Assessment Pathway (IAAP) in the Visual Arts or Music is a New York State Education Department (NYSED) graduation pathway that recognizes students who complete a designated sequence of courses and demonstrate sustained growth and achievement in either the visual arts or music. Throughout their time at LHS, students will curate a portfolio that highlights their artisitic or musical development, skills, and accomplishments. With guidance from their teachers, students will evaluate their progress in relation to the artistic processes outlined in the New York State Learning Standards for the Arts: Creating, Performing, Responding, and Connecting. Students who successfully fulfill the requirements of the IAAP will earn the Seal of Artistic Achievement in the Visual Arts or Music.

Academy of the Visual & Performing Arts

Visual Arts - Highlights

Benefits to Visual Arts participation:

- Unique career exploration and internship placement opportunities based on availability in diverse art fields including:
  - Art Service…Art Education, Art Therapy
  - Fine Arts…Gallery docent, Exhibiting artists.
  - Craft Arts…Jeweler, Clay artist, Woodworkers
  - Graphics…Web designer, Publication/print design
  - Illustration…Fashion, Costume, Theatre design, Advertising
  - Digital/Film…Photography, TV station, Editing
- College Credit Courses: Visual Arts Academy students can earn AP credit by taking either AP Drawing, AP 2D Design or AP 3D Design.
- Involvement with the running of our LHS Arts Academy Art Gallery and Senior Exhibition.

⊗ 8th Grade students interested in applying for the Visual Arts Academy must be enrolled in Studio Art in Grade 9

Performing Arts - Highlights

Benefits to Performing Arts participation:

- A solid foundation for many real-world settings including college and performance venues.
- Advanced (college-level) music courses with both written and aural components
- Collaboration with peers, teachers, alumni, and professional musicians

Job Shadowing and internship placements in highly specific performing arts fields including:

- Music Education Instrumental, Choral, General
- Music Business
- Musical Theatre
- Music Therapy
- Drama/Dance
- Radio
- Television
- Technical Theatre

⊗ Students applying to the Performing Arts Academy must have prior Performing Ensemble experience.

Visual Arts – Course Descriptions

⊗ **Required: Completed Studio in Art in Grade 9**

AVPA: Visual Arts Seminar

6125 Grade 10 1 credit

⊗ **Prerequisite Completed Studio in Art**

⊗ **Required enrollment in AVPA**

⊗ **Required for all sophomore AVPA-Visual Arts students**

This full year introductory course is designed to orient students to the Academy of Visual and Performing Arts. During the year, students will develop their creative problem solving and critical thinking skills over the course of a number of individual and team assignments. Students will create art and present ideas, while also exploring art history, art careers and learning sculptural and printmaking techniques.

Drawing and Painting

IAAP ARTS

6112 Grades 10, 11, 12 1 credit

⊗ **Prerequisite: Studio in Art**

This course introduces students to the fundamental skills and creative processes of drawing and painting. Through hands-on projects, students will explore techniques in pencil, charcoal, ink, watercolor, and acrylic while learning essential concepts such as composition, value, color theory, and perspective. Emphasis is placed on developing individual artistic style, building confidence in visual expression, and understanding the elements and principles of art. Students will engage in critiques, maintain a visual journal, and create a portfolio showcasing their growth throughout the semester. All Art Academy students are required to take this course Sophomore year.

AVPA: Portfolio Development

6120 Grade 11 1 credit

⊗ **Prerequisite Drawing and Painting**

This course ties together the student's previous art education experiences. It is designed for the highly motivated student who is serious about the study of art. It allows students to further explore areas of interest and to critically look at their own work and the works of others. Students develop a journal/sketchbook that becomes a personal resource for new work. Preparation and presentation are ongoing as students assess works to be included in a final portfolio.

Academy of the Visual & Performing Arts

Academy: Internship



9050 (Fall, Summer) Grade 11,12 ½ credit

⊗ **Prerequisite Enrollment in AVPA, LLA or HCA**

⊗ **Required: Student must have their own transportation to and from the mentor's job site**

- Not all internships are located in Lancaster
- An internship has a time commitment and therefore schedules need to be considered prior to registering

The CEIP program is designed to give students hands-on experience in the career field of their choice. It also includes classroom learning on important workplace topics, such as resume preparation and effective interviewing techniques, teamwork, projecting a professional image, and job motivation and benefits. Students are placed with a local company in their desired field to complete the required internship hours.

AVPA: Intro to Art Internship



6127 (Grade 11) , 6126 (Grade 12) ½ credit

⊗ **Submit letter of intent to Room 150 by May 1st**

In this internship, students work closely with our functional art class to create projects and beautify the school garden. Interns help guide classmates, support daily activities, and ensure everyone gets the most out of their experience. Along the way, interns develop leadership, collaboration, and problem-solving skills while contributing to meaningful, hands-on art projects.

AVPA: Gallery Internship



6127 (Grade 11) , 6126 (Grade 12) ½ credit

⊗ **AVPA Students Only**

⊗ **Submit letter of intent to your counselor**

This course gives you the experience of a real gallery internship right on campus. You'll help curate, document, and present artwork while learning the skills and professionalism needed in the art world. Community, responsibility, and collaboration are key as you take on authentic tasks just like a real gallery intern.

AP 2D Design/ AP Drawing/ AP 3D Design

6240 Grade 12 1 credit

⊗ **Prerequisite: Studio in Art**
⊗ **Prerequisite: Drawing and Painting**
⊗ **Prerequisite: Portfolio Development**
⊗ **Required for all senior AVPA-Visual Arts students**

AP Drawing, AP 2D Design, and AP 3D Design are 3 different courses, but they all take place during one class period Students will choose which AP course best fits their own artistic goals in the 1st week of school in September.

This course is for seniors who wish to pursue their own independent project in a series of visually related artworks (Sustained Investigations). Students will submit these works to the College Board in May for possible college credit. Please note, even though some colleges still require students to take the college's Foundation Art courses, most colleges will allow students (both art majors, and non-art majors) to use an AP Art credit in place of a humanities elective.

All Visual Art Academy students are required to take this course Senior year.

Visual Arts Elective Choices

In addition to the AVPA required courses, students must take at least ONE of the following courses.

Ceramics I

6113 Grades 10, 11, 12 ½ credit

⊗ **Prerequisite: Studio in Art**

Get ready to roll up your sleeves and dive into the amazing world of clay! In this class, you'll learn how to create awesome ceramics using hand-building techniques like coil building, slab construction, and pinch pots. No pottery wheel needed—just your hands and some creativity!

We'll explore how to shape and sculpt clay, add textures and designs, and finish your pieces with colorful glazes. Along the way, you'll discover how ceramics can be used to tell stories, show off your personality, or just make something totally unique.

By the end of the course, you'll have a collection of handmade projects you can be proud of, whether it's a funky sculpture, a mug, or a decorative dish. This class is perfect for anyone who loves to create, experiment, and (let's be real) get a little messy.

Ceramics II

6223 Grades 10, 11, 12 ½ credit

⊗ **Prerequisite: Ceramics I**

Ready to take your ceramics skills to the next level? This advanced course combines the best of hand-building techniques, pottery wheel throwing, and mixed media to push your creativity and craftsmanship further than ever before.

You'll refine your skills in coil and slab building while mastering the pottery wheel to create bowls, mugs, and more. We'll also explore how to incorporate other materials—like wood, metal, or fabric—into your ceramic projects for unique mixed-media creations.

In addition to hands-on work, you'll experiment with advanced glazing techniques, surface design, and even sculptural forms. This class challenges you to think outside the box, expand your ideas, and develop a personal style.

By the end of the course, you'll have a diverse portfolio of creative and functional ceramics, plus the confidence to tackle any clay project. This is perfect for students with some ceramics experience who are ready to level up their skills!

Studio in Graphic Design

6111 Grades 10, 11, 12 1 credit

⊗ **Prerequisite: Studio in Art**

This course introduces students to real-world design, creativity, and visual communication through hands-on projects that connect directly to the school community. Students will learn industry-standard design programs while exploring how designers solve problems, build brands, and communicate ideas. Projects may include posters, logos, social media content, merchandise, event graphics, and other collaborative design work. Along the way, students will explore careers in sports marketing, social media design, industrial design, and more. This class is perfect for students who want to build practical skills, think creatively, and make designs that have a real impact.

Introduction to Photography

6118 (formerly Photography I) Grades 10, 11, 12 1 credit

⊗ **Prerequisite: Studio in Art**

This hands-on course introduces students to the art and craft of photography using digital photography and alternative photographic processes. Students will learn the fundamentals of composition, lighting, exposure, and visual storytelling while exploring how photographers communicate ideas through images. The class includes guided photo shoots, creative challenges, and critiques that help students develop their technical skills and personal style. Students will also gain experience with basic photo editing software and build a small portfolio of their best work. Once completing Introduction to Photography, students may sign up for AP Advanced Photography.

Advanced Photography (AP 2D Design)

6124 formerly Photography II Grades 11, 12 1 credit

⊗ Prerequisite: Introduction to Photography

This advanced, college-level course is designed for highly motivated students who want to deepen their technical and creative skills in photography. Students will explore complex camera functions, studio and natural lighting techniques, advanced composition, and professional editing workflows.

A major focus of the course is developing a personal artistic voice through sustained investigation, experimentation, and refinement of ideas. Students will produce and submit a cohesive portfolio that meets College Board Advanced Placement standards, including both process work and polished final pieces to the College Board.

Regular critiques, artist research, and written reflections help students think critically about their work and the work of others.

Illustrating and Cartooning

6109 Grades 10, 11, 12 1 credit

⊗ Prerequisite: Studio in Art

This course is a playground for anyone who loves comics, cartoons, and the vibrant illustrations found in children's books! If you're excited to discover what makes certain cartooning and illustration styles pop and want to create your own works with that same fun and energy, this class is for you. Get ready to push your creative limits and try things you've never done before! We'll dive into the world of character design and storytelling, giving you the chance to create a variety of exciting artworks that show off your new skills. Whether you're looking to spice up your current style or explore something totally fresh, this course is all about having fun while bringing your wildest artistic ideas to life!

Jewelry I

6122 Grades 10, 11, 12 ½ credit

⊗ Prerequisite: Studio in Art

In Jewelry I, students learn the essential skills of metalsmithing and jewelry design through fully hand-fabricated projects. You'll master the jeweler's saw, sanding, filing, cold connections, and tab-stone setting while exploring materials such as metal, beads and more. This course blends craftsmanship with creative problem-solving, giving you the confidence to design and build your own unique pieces from scratch.

Jewelry II

6123 Grades 10, 11, 12 ½ credit

⊗ **Prerequisite: Jewelry I**

In Jewelry II, students expand on foundational techniques and dive deeper into creative design, precision craftsmanship, and more complex fabrication processes. You'll explore advanced cold connections, intricate sawing and forming, experimental materials, beading, polymer clay, metal clay, and introductory casting. With greater independence and artistic choice, you'll develop a personal style while creating professional-quality wearable artworks. Perfect for students ready to push their skills and imagination further.

Visual Arts Extracurricular Activities

Students are encouraged to maintain membership in one or more extracurricular activities.

- Art Club
- Art Honor Society
- Design Club
- Yearbook

Performing Arts – Curriculum Requirements

In addition to the classes listed below, students are encouraged to take other elective classes, and schedule permitting, perform in a second ensemble. *.

Grade 9

1. Enrollment in and successful completion [3]of a full-year Performing Ensemble:
   - Concert Band
   - Symphonic Band
   - Symphony Orchestra
   - Wind Symphony
   - String Orchestra
   - Mixed Chorus
2. Application to the Academy in January

Grade 10

1. Enrollment in and successful completion[3] of a full-year Performing Ensemble:
   - Concert Band
   - Symphonic Band
   - Symphony Orchestra
   - Concert Choir
   - Wind Symphony
   - String Orchestra
   - Mixed Chorus
2. AVPA: Music Theory I

Grade 11

1. Enrollment in and successful completion[3] of a full-year Performing Ensemble:
   - Concert Band
   - Symphonic Band
   - Symphony Orchestra
   - Concert Choir
   - Wind Symphony
   - String Orchestra
   - Mixed Chorus
2. AVPA: AP Music Theory
3. Optional: The Internship may be completed during a student's junior or senior year.

Grade 12

1. Enrollment in and successful completion[3] of a full-year Performing Ensemble:
   - Concert Band
   - Symphonic Band
   - Symphony Orchestra
   - Concert Choir
   - Wind Symphony
   - String Orchestra
   - Mixed Chorus
2. AVPA: Leadership in Music
3. Internship: CEIP or Gallery Internship or Education Intern for Intro to Music or other music courses

Successful completion of a performing ensemble includes learning all music, displaying a good attitude and work ethic, and attending lessons and performances [3]

Performing Arts – Course Descriptions

AVPA: Music Theory I

6540 Grade 10 1 credit

⊗ **Recommended: Band, Orchestra or Choir Experience**

This course helps students develop an understanding of the elements of music while putting those elements to practical use. Students will learn more about reading, writing, and analyzing music utilizing written and aural examples from all time periods of music. Basic piano skills, an overview of music history, and the incorporation of music technology will enhance each student's learning experience.

AVPA: AP Music Theory

AP ⟺ Buffalo State The State University of New York MUS210 Music Theory for Non Majors (3 credits)

6528 Grade 11 1 credit

⊗ **Prerequisite: Music Theory I**

AP Music Theory is an expansion and continuation of topics covered in Music Theory I. This college level course includes instruction in musical terminology as well as notational, compositional, musical analysis, and aural skills. Students may earn college credit by taking the AP Music Theory Exam, or they may choose a dual enrollment option to earn credit for MUS210-Music Theory for Non-Majors (3 credits) at SUNY Buffalo State University. Any student planning to take a music course in college should definitely enroll in AP Music Theory!

AVPA: Leadership in Music

IAAP ARTS

6550 Grade 12 1 credit

⊗ **Required: Approval from AVPA director**

This course is the final class for AVPA performing arts students. During the first quarter, students will explore career options and prepare for college by researching various schools, degree programs, and course sequences. Students will create resumes, gather application materials, and prepare for auditions and interviews. They will learn about the Common App and FAFSA and complete a financial literacy unit. During the second and third quarters, students will propose and develop a recital project. Students will learn about music through history, research standard and modern repertoire for their instrument/voice, and complete a project and presentation about a piece of their choosing. Students will have several opportunities to perform for the music faculty and their classmates, and the project will culminate with the AVPA Senior Recital performance. During the 4th quarter, students will propose topics/projects for the remainder of the course. The final weeks of the class will be reserved for pursuing community service projects and topics based on students' needs and interests.

Academy: Internship



9050 (Fall, Summer) Grade 11,12 ½ credit

⊗ **Prerequisite Enrollment in AVPA, LLA or HCA**

⊗ **Required: Student must have their own transportation to and from the mentor's job site**

- Not all internships are located in Lancaster
- An internship has a time commitment and therefore schedules need to be considered prior to registering.

The CEIP program is designed to give students hands-on experience in the career field of their choice. It also includes classroom learning on important workplace topics, such as resume preparation and effective interviewing techniques, teamwork, projecting a professional image, and job motivation and benefits. Students are placed with a local company in their desired field to complete the required internship hours.

Performing Arts Extracurricular Activities

Students are strongly encouraged to maintain membership in one or more extracurricular activities:

- Academy of the Visual and Performing Arts
- Brass Choir
- Carnival Kids Steel Orchestra
- Handbell Choir
- Jazz Combo
- Jazz Ensemble
- Marching Band
- Musical – Performing Arts Society
- Pit Orchestra
- Show Choir
- Stage Crew
- String Quartets
- Swing Choir
- Swingin' Strings
- Tenor Bass Choir
- Winter Guard
- Woodwind Choir

Healthcare Academy- (HCA)

The Lancaster Healthcare Academy is designed for students who are interested in exploring health-related careers. During the three year curriculum, classes will visit healthcare facilities, host various health professionals, and discuss current trends in healthcare. It is the perfect opportunity to get a head start in the competitive and rewarding healthcare field.

Students in the academy complete a series of 3 courses - Introduction to Health Careers, Anatomy & Physiology I and Anatomy & Physiology II with lab.

In addition to course work, students are required to attend monthly academy meetings and complete 20 service hours. These service hours can be completed at healthcare facilities, volunteering for healthcare related events (such as Relay for Life or a benefit event), or for helping with academy activities. Students may also complete internships in healthcare fields.

Many of the HCA Alumni are currently enrolled in pre-medical programs and other healthcare majors such as Occupational Therapy, Physician Assistant, PT and nursing. Most students are accepted to their first choice school and program.

Healthcare Academy Course Descriptions

HCA: Introduction to Health Careers

4574 Grade 10 1 credit

⊗ **Prerequisite: Course credit for Living Environment**

⊗ **Prerequisite: Acceptance to Healthcare Academy**

This course is designed to be the entry course for the Healthcare Academy. Students who are enrolled in the Academy must take this course. The course will explore the opportunities that are available in the healthcare Field. Careers which work to support the doctor, the patient and the healthcare facility will be discussed. Practicing healthcare professionals will discuss their fields and share their experiences with the class. The course will meet for one period every day. The final assessment for this course is written by the instructor.

Healthcare Academy

HCA: Anatomy and Physiology I

4110 Grade 11 1 credit – Life Science

⊗ **Prerequisite Regents exam credit for Living Environment**
⊗ **Prerequisite HCA Introduction to Health Careers**
⊗ **Prerequisite Acceptance to Healthcare Academy**

This course will introduce students to the basic principles related to the structure and function of the human body. Anatomical terminology, cell structure, basic biochemistry, histology and all levels of structural organization of the integumentary and skeletal systems will be emphasized. Common pathology of each system will also be discussed. Medical terminology and ethical issues relating to each studied system will be covered within each unit of study. This course meets for a single class period each day. Final assessment is created by the instructor. Life Science credit.

HCA: Anatomy and Physiology II

4111 Grade 12 1 credit – Life Science

⊗ **Prerequisite Regents exam credit for Living Environment**
⊗ **Prerequisite Regents exam credit for Chemistry**
⊗ **Prerequisite HCA Introduction to Health Careers**
⊗ **Prerequisite HCA Anatomy and Physiology**
⊗ **Prerequisite Acceptance to Healthcare Academy**

This course is a continuation of HCA Anatomy and Physiology I. All levels of structural organization of the Nervous, Endocrine, Cardiovascular, Digestive, and Urinaty systems will be emphasized. Common pathology of each system will also be discussed. Medical terminology and ethical issues relating to each studied system will be covered within each unit of study. This course has five class periods and two double lab periods every six days. The final assessment for this course includes material covered in both HCA Anatomy and Physiology I & II and is created by the instructor.

Leadership Academy (LLA)

Lancaster Leadership Academy

A Unique Leadership Learning Experience

The Lancaster Leadership Academy is an exciting Academy at Lancaster High School designed to provide students with coursework and other educational experiences that will enhance their leadership skills. These experiences will enable them to become highly successful in college, in their chosen career and in future community involvement.

The focus of the Leadership Academy will be to develop individual student leaders in the areas of responsible citizenship, communication, goal setting, group processes, as well as business, organizational and managerial skills. Students in this Academy will be required to take an active role both in the high school and the greater Lancaster community.

Lancaster Leadership Academy Mission

The purpose of the Lancaster High School Leadership Academy is to provide a structured learning environment that will allow (help develop) student leaders to (who will) make a positive impact on our school's climate and our community as well as to enhance those skills necessary for them (our students) to become active, productive citizens.

Leadership Academy students must complete a 4.5 credit sequence over the course of their sophomore, junior and senior years with a cohort group of students in their grade. Candidates for this Academy should be positive, highly self-motivated individuals who are willing to take risks and who are willing to put in the time necessary to make a positive difference for others.

Complimentary Courses

To complete the Leadership Academy credit sequence, Academy students must choose an additional 1 credit from a selection of complementary coursework in other departments. Acceptable courses are listed within the course desciptions section (below) but students may request optional courses on a case by case basis. These courses have been chosen because they augment the work done in the core Academy courses. One additional credit is utilized as to not overwhelm the student's choice of elective courses throughout their high school experience.

Leadership Academy

"Why be part of leadership?"

As a member of the Leadership Academy you will develop skills for success in college, career and life:

- Communication
- Time management
- Problem solving
- Teamwork
- Commitment
- Organization
- Self-discipline
- Responsibility
- Risk-taking
- Stress management
- Goal setting
- Conflict resolution
- Meeting management
- Professional writing skills
- Presentation skills
- Public speaking
- Community service

Leadership Academy Internship Program

Experience an Internship Program where you will interact with adult leaders in the community that will lead to valuable on-site leadership experiences and future networking opportunities.

NASC Distinguished Leader Program

Students in the Leadership Academy complete the NASC Distinguished Leaders Program throughout their Sophomore and Junior years through their Academy Classes. The topics are broken up as outlined below and augment the curriculum for each class. At the conclusion of their junior year the students meet with the Academy Directors and present their application. Over the past 10 years over 200 students in the Leadership Academy have earned the designation as a NASC Distinguished Leader. This program is structured so that the students will receive the designation of "National Distinguished Student Leader", a designation that less than 1% of graduating seniors have nationally, in time to place it on their college and scholarship applications.

Leadership Academy Course Descriptions

LA: Effective Communication for Leadership



1325 Grade 10 1 credit

This one-credit, introductory course will challenge students to develop speaking, listening, and writing skills to become successful leaders. Students will expand upon their prior character education experiences by examining and adopting the qualities and characteristics of successful leaders. Students will develop and exhibit time management, organizational and managerial skills, personal growth, strategies for professional interaction with others, as well as goal-setting techniques.

Classroom experiences will include but not be limited to class and school-wide projects and events, journal writing, speeches, interview skills, electronic, phone, and interpersonal communication, goal setting, time management, organization, stress management, and team building. Students will make periodic contributions to their Leadership Portfolios in preparation for the National Distinguished Student Leader Program.

Additionally, students will complete the following service hours opportunities.

1st & 2nd quarters

- ❑ Complete 5 school service hours each quarter

3rd & 4th quarters

- ❑ Complete 5 school service hours each quarter
- ❑ Complete 5 community service hours each quarter

Leadership Academy

LA: Processes of Leadership



30 Grade 11 1 credit

In this one-credit course, students will develop and expand effective group process techniques and business and marketing skills. The class will explore topics such as motivating others, goal setting, group process, problem solving, conflict resolution, marketing strategies, meeting structures, etc. Classroom experiences will include but not be limited to journal writing, oral presentations, group projects, school-wide events, and written tasks. Students in this class will have the opportunity to create and implement new school events/continue traditional events. Additionally, students will complete the following service hours opportunities.

1st & 2nd quarters

- ❑ Complete 10 school service hours each quarter
- ❑ Complete 5 community service hours each quarter

3rd & 4th quarters

- ❑ Complete 10 school service hours each quarter
- ❑ Complete 10 community service hours each quarter

This course will introduce students to the project-planning model with steps such as goal setting, proposals, objective charts, and evaluations. Student work is a mixture of traditional assignments and hands-on projects, group project planning and implementation (including running various school events), as well as involvement in the planning of the annual Leadership Academy Trip. Students also have an opportunity to attend various local and national leadership conferences throughout the year. Active school involvement and service-learning hours are required.

Leadership Academy

Leadership in Action

1416 Grade 12 1 credit

This one-credit course is project-based, with students utilizing a project-planning model to make a positive difference in the school and community. Students will exhibit responsibility, perseverance, respect and integrity while working as teams to set goals, design timelines, write proposals, create publicity, evaluate outcomes and write final reports.

Leadership in Action students work in teams and complete one major project per quarter. Examples of past projects include:

- *Lancaster-Depew Week and Spirit Week* activities such as the Bonfire, Motorcade, Spirit Assemblies, Powder Puff Game, Homecoming Dance, Spirit Bowl, Mr. Lancaster, Building Decorations, etc.
- *Social activities* such as the Courtyard Dance, Freshman Mixer, Spring Courtyard Dance, Prom, Homecoming, etc.
- *Holiday projects* such as Jingle Links, Cookie Marathon, Coloring Contest, Holiday Food Drive, Santa Grams, Christmas Tree Contest, Building Decorations, etc.
- *Senior Class projects* such as Red Cross Blood Drives, Senior Mural, Senior Dinner Dance, Senior Apparel Sale, Senior Day, Senior Recognition Program, etc.
- *Community service projects* such as Group Home Socials, Food Drives, US Troop Support Program, Project Clean Your Locker, Lancaster Youth Bureau Holiday Distribution, etc.
- *School service projects* such as Freshman Orientation, 8th Grade Information Night, Recycling, and Appreciation Luncheons for various LCSD employee groups, Class Mural Revitalization, SOAR, etc.

Students complete assignments outside of class time as a component of their quarterly grade. Each quarter, students must:

- ❑ Complete 15 school service hours
- ❑ Complete 10 community service hours

Over the years the Leadership in Action class has become a very active and high-profile class that demands much time and effort as well as constant commitment. This course will be rewarding for those who enjoy a mental, emotional, and physical challenge. It may be too stressful for those students who would like to enjoy a relaxing senior year; however the rigor is an excellent way to prepare students for college and life beyond high school.

Academy: Internship

9050 (Spring, Summer, Fall) Grade 11,12 ½ credit

⊗ **Prerequisite Enrollment in AVPA, LLA or HCA**

⊗ **Required: Student must have their own transportation to and from the mentor's job site**

- Not all internships are located in Lancaster
- An internship has a time commitment and therefore schedules need to be considered prior to registering

The CEIP program is designed to give students hands-on experience in the career field of their choice. It also includes classroom learning on important workplace topics, such as resume preparation and effective interviewing techniques, teamwork, projecting a professional image, and job motivation and benefits. Students are placed with a local company in their desired field to complete the required internship hours.

Leadership Academy

Foundations Teachers' Assistant



1002 (full year, alternating days) Grade 11,12 ½ credit

The Foundations for Success Program has been designed to help underclassmen adjust to life in the High School and equip each student with skills and knowledge to be successful throughout their high school career and beyond.

Each Foundations classroom (25-28 students) has a teacher who serves as the guide as the students grow together through different lessons, exercises, and experiences. A major factor in the effectiveness of this "different" type of class is a Student Mentor or Teacher's Assistant (TA). Each classroom (you will be assigned to the same class period, every day, for the entire school year) will have one or two upperclassmen TA(s) who will assist the teacher in planning and implementing many of the classroom exercises and lessons.

The Role of a Foundations Teachers' Assistant

The intention is to have Upperclassmen mentors to serve as Role Models for the underclassmen students participating in the class and as "Teaching Assistants" for the classroom Teacher. Your responsibilities will include attending your Foundations Class, assisting the teacher in designing and the implementing classroom activities and lessons, and various tasks all with the goal of helping the students in your class grow and become more comfortable at LHS. At the conclusion of the school year you will earn 1/2 credit for serving in this capacity.

Leadership Academy Complimentary Choices

To complete the Leadership Academy credit sequence, Academy students must choose an ***additional 1 credit*** from a selection of complementary coursework in other departments. Acceptable courses are listed below but students may request optional courses on a case-by-case basis***.***

★ Refer to the Course Description Guide for detailed course information

CFM: Career Skills and Success

(Fall) 9032 Grades 9, 10, 11, 12 ½ credit

⊕ Suggested Pairing – CFM Financial Literacy

What do you want to be when you grow up? Students complete and analyze a variety of assessments which will assist them in investigating and exploring careers based on their interests, values, and skills. Students will explore post-secondary education and training options, learn about the job seeking process; including building a resume and preparing for interviews. They will gain an understanding of workplace regulations, the importance of lifelong learning, leadership and ethics in the workplace, and workplace readiness skills.

CFM: Financial Literacy

(Spring) 9045 Grades 9, 10, 11, 12 ½ credit

⊕ Suggested Pairing – Career Skills and Success

Learn how to be smart with your money and the importance of managing your money wisely so you don't go broke in the future! Through project-based tasks using true-to-life scenarios, students will learn how to navigate and make financial decisions related to saving & spending, budgeting, money management & banking, credit & loans, investing, insurance, taxes, and becoming a savvy consumer.

Principles of Marketing

⇔ Buffalo State The State University of New York BUS320 Principles of Marketing(3 credits)

(Fall) 9037 Grades 10, 11, 12 ½ credit

⊕ Suggested Pairing – Sports and Entertainment Marketing

Marketing provides the bridge between business and consumers. This course will open the student's eyes to the world of marketing that is all around and to become educated decision makers. Content revolves around the basic marketing functions, selling, public service announcements, promotion, market research, social media, customer service and buying behavior. Marketing is a course for anyone to take who is and will continue to be a consumer.

Leadership Academy

Sports and Entertainment Marketing

BUFFALO STATE The State University of New York BUS368 Sports and Entertainment Marketing (3 credits)

(Spring) 9040 Grades 10, 11, 12 ½ credit

⊕ Suggested Pairing – Principles of Marketing

This course is designed to study marketing principles as it relates to the sports and entertainment industry. Instructional areas will include: marketing, advertising, promotion, internet/social media marketing, sponsorship and endorsements, event marketing, and branding an image. A basic understanding of the principles of marketing is helpful to enroll in this course, but not a requirement. Classroom instruction will be reinforced through the use of group/individual projects, guest speakers, possible field trip experiences, current periodicals, computer work, and lecture/discussions.

Event Planning and Management

BUFFALO STATE The State University of New York HTR375 Events Management (3 credits)

9918 Grades 9,10,11, 12 ½ credit

⊗ **Recommended: Students should have taken one FACS cooking class**

This course will give you a look into the almost invisible but greatly important career of event planning. This course will explore the various aspects of event planning as well as the characteristics and skills necessary to be a successful event planner. Topics include: Defining event planning and its characteristics, exploring why clients use event planners, types of events, your job as an event planner, financial aspects, contracts, and insurance issues, and the importance of networking. Students will assist with planning and managing an event relevant to the course topics.

Keyboarding & Microsoft Word

Microsoft Office Specialist

(Fall) 9012 Grades 9, 10, 11, 12 ½ credit

⊕ Suggested Pairing – Microsoft Excel & PowerPoint

This real world course prepares students to understand and prepare fast, efficient forms of digital communication. Students learn efficient keyboarding skills and become skilled in Microsoft Word features by completing hands on simulations similar to what would be found in high school, college and business.

Students become quick and efficient by mastering the tools necessary for success in high school, college, the workplace and their everyday lives. Successful students are eligible to become certified as a Microsoft Office Specialist, a highly sought after qualification of hiring managers.

Leadership Academy

Microsoft Excel & PowerPoint

(Spring) 7523 Grades 9, 10, 11, 12 ½ credit

⊕ Suggested Pairing – Keyboarding & Microsoft Word

What is it? Microsoft Office, Social Media and Google Applications are how businesses communicate today. Utilize these tools to create spreadsheets and presentations, and learn how to use social media in a professional manner while gaining experience with Google Apps and Microsoft Office

Why it matters: With so much competition in the job market, it should come as no surprise that those with Microsoft Office, Social Media skills and experience using Google Apps are often selected over those who do not. This class will give you the expertise in all these critical areas.

Journalism

⇔ Buffalo State The State University of New York COM100 Media Literacy (3 credits)

1316 Grades 10,11,12 ½ credit

Students will learn the fundamentals of journalism: writing, editing, design, and producing a newsletter/ paper. Students will staff and produce the school's newspaper. This is a "hands-on" course, where the majority of work is finished during class time.

Broadcast Journalism & Media Studies

⇔ Buffalo State The State University of New York COM210 Intro to Media Writing (3 credits)

1336 Grades 10,11,12 ½ credit

Broadcast media is the focus of this course. The course will address current media issues including television advertising, radio and television news, talk shows, and entertainment news. Students will have an opportunity to create their own commercials and talk shows. The goal is for students to be more aware of the way broadcasters and media outlets try to influence and shape their decisions, from current news events to which products they buy. Students DO NOT need to take Journalism to sign up for this course.

Public Speaking

1414 Grades 10, 11, 12 ½ credit

This course provides students with a variety of speaking experiences to increase skill and gain confidence in public speaking. It focuses on all aspects of public speaking including formal and informal speeches, improv, sports broadcasting, persuasion, wedding/funeral speeches, trial presentations, interviews, pep talks, ghost stories, and more. Fun class activities are meant to increase self-confidence in the student. This course will help prepare you for speaking and presentations in school and in your future life!

Leadership Academy

Prep For Success

1004 Grade 12 ½ credit

This course is designed for college-bound seniors looking to prepare for life after LHS. The first semester curriculum will include assistance with college applications, resumes, college selection, career choices, job and interview skills, and discussions on how to choose the college/career path that is right for you. Several guest speakers from local colleges will speak. The second semester covers topics such as budgeting, time management, life skills. campus life, mental health, and "adulting". This class meets every other day for the full year and is graded P/F. This is the course to prepare you for the rest of your life!

Computer Graphics

9127 Fall Grades 9, 10, 11, 12 ½ credit

Interested in creating images for a game or internet site? This course is your starting place! Learn the CGI basics of Adobe Photoshop and Illustrator while getting hands on experience using scanner applications, image correction, and illustration layout. Students will use a variety of Adobe software programs to develop layouts which are used in the CGI industry today.

Computer Animation

9128 Spring Grades 9, 10, 11, 12 ½ credit

Make your images move! The basics of cell frame animation, movement in a 3-D space, adding sound to a project, recording and editing your own audio will be taught. Use your Multimedia projects for a college application, or you can use your new knowledge to create great presentations for your other classes. Adobe Photoshop, Adobe After Effects, Audacity, Adobe Audition and other CGI industry standard programs will be used.

AP Psychology

2029 Grades 11,12 1 credit

⊗ **Recommended: Social Studies teacher recommendation.**

The course work is rigorous, with high expectations regarding student commitment and motivation. Students who have a history of attendance issues are discouraged from registering for this course. Students will be required to master psychology concepts and vocabulary terms. Coursework includes outside reading from the college level textbook, upper- level writing, and projects with deadlines, which will count as test grades. Enrichment activities include guest speakers, debates, videos and presentations. Students will also be given the opportunity to earn college credit in May with the AP exam.

World Tourism

5026 Grade 9, 10, 11, 12 1 credit

- Course subject to cancellation based on student enrollment
- This is an elective and does not satisfy the Regents Diploma requirement
- This course is taught in English

Does world travel ever interest you but seem too overwhelming to consider? Then you should try this course. It will provide real world skills for all aspects of the tourism industry including air and land transportation, cruises, all-inclusive resorts, various accommodations, tour vs travel terminology, world geography, types of travelers, most popular travel destinations, and much more. The world's most stunning and even mysterious places will be explored through Google Maps, breath-taking videos, and other engaging experiences. Travel safety concerns and precautions will also be addressed. Project-based learning, daily conversations, low-anxiety games, and other thoughtful student-centered activities will be used to help students build their knowledge of the world as well as inspire their Wanderlust. This course will end in a final project instead of an exam.

Leadership Academy

Cultural Awareness & Competency (Elective)

5027 Grade 9, 10, 11, 12 ½ credit

- Course subject to cancellation based on student enrollment
- This is an elective and does not satisfy the Regents Diploma requirement
- This course is taught in English

View the world's cultures through a different and unique lens! Understand the phenomena that occur when cultures come into contact! This course is for students who truly wish to examine similarities and differences among the world's cultures, build relationships, empathize and establish trust with people from diverse backgrounds. Throughout this 20-week course, students will develop a thorough understanding of the concept of culture and cultural diversity by examining language, education and work philosophies, religion, history, symbols, traditions, family values, foods, physical environment, and societal influences. Students will learn how to successfully interpret the behaviors of and interact with someone from a different culture as well as increased awareness of their own cultural backgrounds. Daily classroom activities will be fun, lively, reflective, and engaging. This course concludes with a final project.

Community Service Credit

⊗ **½ credit earned per an additional 90 documented hours of community service.**

Manufacturing & Construction Skilled Trades Academy (LTA)

Overview

The Lancaster Manufacturing & Construction Skilled Trades Academy is designed for students who are interested in exploring careers in the Manufacturing & Construction industries. During the three-year curriculum, classes will visit local facilities, host various professionals, and discuss current trends in Manufacturing & Construction.

Students in the Skilled Trades Academy will complete a series of courses designed to offer practical experiences. The focus will be on acquiring both the soft skills as well as technical skills for entry-level employment in the manufacturing and construction fields.

The Manufacturing and Skilled Trades Academy (MSTA) realizes not every student wants to go to college. There are students that want to enter the workforce and begin their careers, or they may still want to go to college but may not be prepared, or can afford, that educational rigor and cost. The MSTA is here to help prepare them for that reality by giving them the rudimentary skills to succeed in both.

Manufacturing and Skilled Trades Mission

The mission of the Lancaster High School Manufacturing and Skilled Trades Academy is to develop the student's skills and talents to be successful in the manufacturing and/or trades industries while creating active, productive citizens.

To be more specific the MSTA is being created to:

- prepare students for the realities of the "outside" world be it college or the workforce.
- prepare students for the manufacturing and trades jobs of today and tomorrow.

▶***Please Note: You do not have to be a member of the Trades Academy to take Academy classes, however without taking five courses in Technology you may not qualify for an Advanced Regents diploma. Please talk to your counselor***.

Manufacturing & Construction Skilled Trades Course Descriptions

Trade Apprentice I



9103 (Fall) Grade 10 ½ credit

A foundation class for the Trades Academy: This Apprentice course introduces the concepts and terminology of site planning, foundation elements, wall and ceiling structure, roofing styles, through various projects. This class introduces pattern development for sheet metal work; students will then create various sheet metal projects using industry standard tools.

- ***Skills Covered:*** Various Materials Processing, Sheet Metal Fabrication, Basic Construction Concepts
- ***Sheet metal project examples***: trays, cell phone holder, hanging wall shelf

Trade Apprentice II



9101 (Spring) Grade 10 ½ credit

A foundation class for the Trades Academy: This Apprentice course is a survey course that introduces the hands-on skills for a career in trades using carpentry tools, planning, implementing and execution of a project, and beginning concepts of manufacturing. Students will create various projects using industry standards.

- ***Skills Covered***: Various Materials Processing, Manufacturing Concepts
- ***Example project***: students each create individual coat rack

Trade Journeyman I



9104 (Fall) Grade 11 ½ credit

Journeyman explores the manufacturing process used in the creating and development of products, either for commercial or industrial use. These concepts are further developed in the CNC Machining & Manufacturing class. The students will also learn about plumbing concepts for both residential and commercial buildings. Projects in both copper and PVC pipe are explored.

- ***Skills Covered***: Various Materials Processing, Plumbing, Architectural Concepts
- ***Example projects:*** PVC toys for the Lancaster Youth Board, copper sprinkler, copper candle holder

Trade Journeyman II



9102 (Spring) Grade 11 ½ credit

This is a course that explores the manufacturing process more in depth from design to production. Students further their manufacturing skills integrating the design of products with moving parts.

- ***Skills Covered***: Various Materials Processing, Manufacturing Concepts, Project Management
- ***Example project:*** students each create folding step stool

Trades Academy

Trades: Construction Drawings & Modeling

9106 Grade 11 ½ credit

Construction Drawings & Modeling is a course that focuses on understanding drawings related to architecture and building trades, such as plumbing, electrical, and mechanical (MEP). Students will learn plan symbols, review sets of plans of Lancaster High School, and build scale models. They will work in teams and utilize tools, materials, and resources related to the trades.

Trades: Advanced Manufacturing

9105 Grade 11 ½ credit

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities to understand manufacturing and puts the students in a position to utilize modern manufacturing processes to create projects. Students will be introduced to technologies such as Injection molding, laser cutting, 3D rapid prototyping, and CNC machining.

Trades: Senior Project I

9107 (Fall) Grade 12 ½ credit

In the senior level coursework, the personal management skills needed to gain employment or be successful in college are discussed. Topics include entrepreneurship, lifestyle choices and financial management. In addition, the class will design, develop, and build projects using concrete and metal. Students will practice welding skills and concepts in masonry.

- ***Skills Covered***: Welding, Masonry
- ***Example project:*** students each create a concrete table with welded legs, a concrete tabletop fire pit

Trades: Senior Project II

9108 (Spring) Grade 12 ½ credit

In the senior level coursework, the personal management skills needed to gain employment or be successful in college are discussed specifically concentrating on the soft skills needed to work individually or as a team member. In addition, the class will design, develop, and build projects to meet a personal or community need. Projects are designed around group work and are more complex in design and production and intended to simulate the manufacturing environment.

- ***Skills Covered***: Advanced Materials Processing, Project Management
- ***Example project:*** Students work together to manufacture an Adirondack Chair

Trades – Other Relevant Coursework

- Basic Electricity and Electronics
- Home Repair and Maintenance
- Architectural Drafting
- 3D Architecture
- Computer Graphics

Project Lead the Way (PLTW)

Overview

Project Lead The Way is a national initiative to prepare high school students for a future in the exciting and ever-changing world of Technology and Engineering Technologies. Project Lead The Way is currently being offered in over 5000 schools in all 50 states across the USA.

When you take a PLTW class you will not only be working with hundreds of Lancaster classmates, but you will also be working with tens of thousands of classmates across the United States. So, sign up today for your first class in Project Lead The Way, and take a step in the right direction for your future! See your Counselor today.

You may also consider following our Twitter page @LHSNYtech

PLTW as an Academy

PLTW is recognized as an academy and requires an application for continuation in the program. As in the past, you can still take PLTW in tandem with another Academy. Just be aware that this may cause scheduling conflicts and you will likely sacrifice a lunch period in that year.

Applications are done in February and acceptance letters are sent out (via email for PLTW applicants) in early March. Check your school email for your letter at that time and confirm receipt in the email. If accepted, sign up for the next PLTW course with your counselor for the upcoming school year...and start engineering greatness!

Dual Enrollment (Project Lead the Way) –Rochester Institute of Technology

Project Lead the Way courses offer the dual enrollment option with Rochester Institute of Technology. Look for the dual enrollment symbol and speak to the teacher on how to enroll

Program Notes

- ★ Any Project Lead The Way courses may be used to fulfill the third year of Math or Science as required by NYS Regents.
- ★ Project Lead The Way students can apply for AP College Board Recognition.
- ★ All students will need to complete the application process for the Engineering Academy during their freshman year.

Project Lead the Way Course Descriptions

Engineering Design and Drawing for Production (DDP) - Honors

A Solid Modeling Approach

RIT Rochester Institute of Technology

9162 Grades 9,10, 11, 12 1 credit

⊗ **Recommended: 80+% in Grade 8 Math**

- Students apply to Project Lead the Way (Engineering Academy) as a Freshmen to continue in the program
- Course satisfies Regents credit for Art/Music.

For all students interested in the Project Lead The Way or Manufacturing and Skilled Trades Academies or any career path in Science, Technology, Engineering, or Mathematics.

Students use the engineering design process, science, and engineering principles to complete hands-on projects.You will work both individually and in teams to design solutions to a variety of problems using 3D modeling software, 3D printing technology creating drawing sheets to document their work. Software utilized: Autodesk Inventor.

Computer Science Essentials (CSE)

9119 Grades 9, 10, 11, 12 ½ credit

⊗ **Recommended: Any student with a general interest in computer programming and robotics**

⊗ **Recommended: Strong background in Math and Science**

Students will experience the major topics, big ideas, and computational thinking practices used by computing professionals to solve problems and create value for others. This course will empower students to develop computational thinking skills while building confidence that prepares them to advance to Computer Science Principles & Computer Science A.

Principles of Engineering (POE)

RIT Rochester Institute of Technology

9172 Grades 10, 11, 12 1 credit

⊗ **Recommended: Honors DDP or DDP Tech teacher recommendation**

⊗ **Recommended: Permanent or probationary acceptance into the PLTW program**

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

Project Lead The Way (Engineering Academy)

AP Computer Science Principles (CSP)

9129 Grades 10, 11, 12 1 credit

⊗ **Recommended: Honors Computer Science Essentials or 1 year programming experience**

⊗ **Recommended: Strong background in Math and Science**

Open doors in any career with computer science! CSE implements the College Board's 2013 CS Principles framework. Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. In CSE, students create apps for mobile devices, automate tasks in a variety of languages, and find patterns in data. Students collaborate to create and present solutions that can improve people's lives, and weigh the ethical and societal issues of how computing and connectivity are changing the world.

Digital Electronics (DE)

9120 Grades 11, 12 1 credit

⊗ **Recommended: Honors DDP and POE (may take concurrently)**

⊗ **Recommended: Passed level 2 Math (or enrolled)**

⊗ **Recommended: Permanent or probationary acceptance into the PLTW Academy**

From smartphones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

Possible career opportunities consist of Digital Electronics Engineers/Technicians, ranging from designing and manufacturing electrical systems to installing to repairing them. Digital electronic engineers design an assortment of electronic equipment, such as control systems, music players and global positioning systems.

Computer Integrated Manufacturing (CIM)

9130 Grades 10, 11, 12 1 credit

⊗ **Recommended: Honors DDP or DDP Tech teacher recommendation**

⊗ **Recommended: Permanent or probationary acceptance into the PLTW Academy**

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.

Project Lead The Way (Engineering Academy)

Design and Prototyping Lab (DPL)

9113 Grades 10,11,12 ½ credit

⊗ **Recommended: All PLTW students should take this course to enhance their program experience**

⊗ **Not an official PLTW course**

Fabrication Studio is hands-on experience in designing and manufacturing a product. Students will work as a team to design a product and organize all the production needs from materials needed to processing tools and machines. Students may be exposed to cutting edge production methods like CNC Machining, Laser Cutting, and 3D Printing.

Engineering Design and Development (EDD) – The Capstone Class

9173 Grade 12 1 credit- honors

⊗ **Recommended: Honors DDP, DEP or POE Instructor approval**

⊗ **Recommended: Students may take POE, CIM, CSP or DE concurrently**

⊗ **Recommended: Permanent or Probationary acceptance into the PLTW Academy**

EDD is a college preparatory course designed to prepare students for the rigor of an engineering program. Students will work in one team for the entire year to solve a real-world problem. In addition to completing the design project, students will learn valuable skills for competing in a demanding college environment. Student grades will be based on a combination of individual and group work.